

Work Order ID 162611

Monday, June 05, 2017 10:32:04 AM

162611

Page 1

Item ID: D412-698-013

Accept

N900040100 Setup Start ***NS1***

Revision ID:

Item Name: Cabin Door Handle -Aluminum Door

Stop ***NS2***

Start Date: 6/14/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/22/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: DAS 21 Date: JUN 07 2017 Tooling: _____ Date: _____
QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN D412-698	F		DAS 6	JUL 19 2017					
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D412-698-013CHG001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.06							
Quality Control									

DAS
27
9-89

AUG 10 2017

JUL 21 2017

DAS
6
9-89DAS
27
9-89

AUG 10 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 162611

Monday, June 05, 2017 10:32:04 AM

162611

Page 2

Item ID: D412-698-013

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop ***NS2***

Item Name: Cabin Door Handle - Aluminum Door

Start Date: 6/14/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/22/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: _____

0.00

130

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D412-698-013
Location: FG022

Packaging

DAS
27
9-89

AUG 10 2017

140

QC21- Final Inspection - Work Order Release

0.00

140

Memo

0.20

QC

Quality Control

DAS
21
9-89

AUG 11 2017

DAS
21
9-89

AUG 10 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Monday, June 05, 2017 10:32:03 AM

Page 1

Work Order ID: 162611

162611

Parent Item: D412-698-013

D412-698-013

Parent Item Name: Cabin Door Handle - Aluminum Door

Start Date: 6/14/2017

Required Date: 6/22/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev: C Removed Manufacturing 05-11-06 JLM
IPP Rev: D change to rev D ECN 1104 08-01-28 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3203-1 *D3203-1* Handle		Manufactured	No			110	Each	19.0000	4	8			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST484				19					
				142048				1					
				158470				6					
				160668				12					
D3220-041 *D3220-041* Doubler Assembly		Manufactured	No			110	Each	0.0000	2	2			
D3220-042 *D3220-042* Doubler Assembly		Manufactured	No			110	Each	1.0000	2	2			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST485				1					
				158425				1					
D3220-3 *D3220-3* Doubler		Manufactured	No			110	Each	10.0000	2	4			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST485				10					
				160262				10					

JUL 21 2017

JUL 21 2017

JUL 21 2017

JUL 21 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			
		Completed By			
		Lead hand / Supervisor Approval Verification			
		QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
☐ OTHER : _____					

Picklist Print

Monday, June 05, 2017 10:32:03 AM

Page 2

Work Order ID: 162611

162611

Parent Item: D412-698-013

D412-698-013

Parent Item Name: Cabin Door Handle -Aluminum Door

Start Date: 6/14/2017

Required Date: 6/22/2017

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

110

Each

3,041.000

8

16

MS21042L 4

Nut

**

DAS
6

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

51

m135058

51

OVER007

2400

m137402

400

m137544

1000

m137680

1000

ST303

580

m137371

580

JUL 2 1 2017

DAS
27
9-89

MS24694-S98

Purchased

No

110

Each

200.0000

16

32

MS24694-S98

Screw

**

DAS
6

Location

Loc Qty

Loc Code

over006

150

m135704

150

ST283

50

m134502

50

JUL 2 1 2017

DAS
27
9-89

32

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By JOF S I 1912	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY						JOF S I 1912	
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, June 05, 2017 10:32:03 AM

Page 3

Work Order ID: 162611

162611

Parent Item: D412-698-013

D412-698-013

Parent Item Name: Cabin Door Handle -Aluminum Door

Start Date: 6/14/2017

Required Date: 6/22/2017

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0463J

Purchased

No

110

Each

4,888.000

8

16

NAS1149D0463.J

Washer

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

40

M135056

40

ST260a

4000

M137371

2000

M137699

2000

ST263

848

M137544

848

16

JUL 21 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : ☐						
Misidentified ☐	☐	Past Due ☐							

Work Order ID 162611***162611***

Page 1

Item ID: D412-698-013

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Cabin Door Handle -Aluminum Door

Start Date: 6/14/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/22/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

Date: JUN 07 2017

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

IIN D412-698

F

JUL 19 2017

100

Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D412-698-013CHG001

DAS

5
9-89

JUL 21 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.06

Quality Control



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Eagle Copters Ltd.
823 McTavish Road N.E.
Calgary, Alberta
Canada T2E 7G9

Number: SH92-43

Issue No.: 5

Approval Date: August 26, 1992

Issue Date: September 14, 2007

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

BELL 204B, 205A, 205A-1, 205B, 212, 214B, 214B-1, 412, 412 CF, 412 EP

Canadian Type Certificate or Equivalent:

BELL 205B H-104
BELL 214B, 214B-1 H-80
BELL 212, 412, 412 CF, 412 EP H-86
BELL 204B, 205A, 205A-1 H1SW

Description of Type Design Change:

Serviceability Kit: Aux Cowl latches, cockpit door wear pads, cabin door handle, sliding door roller system and automatic door opener kit

**Installation/Operating Data,
Required Equipment and Limitations:**

Configuration 1:

Installation of Serviceability Kit to be done in accordance with DOT approved Aero Design Ltd., Document Control List A-85-DCL1, Revision 1, dated 27 January 1997, or later approved Revision.

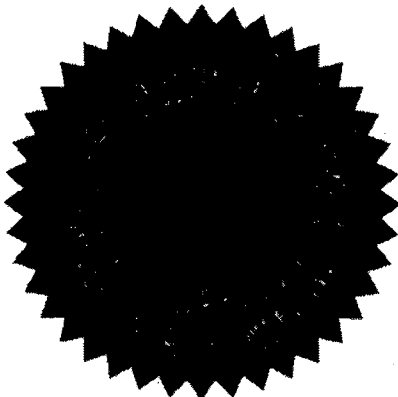
Configuration 2:

Installation of Door Modification Kits to be done in accordance with Transport Canada (TC) approved Dart Aerospace Ltd. Installation Instructions IIN-D412-698, Revision D or later TC approved revision.

Inspection of Door Modification Kits is to be performed in accordance with Dart Aerospace Ltd. Instructions for Continued Airworthiness ICA-D412-698, Revision 3 or later TC accepted revision.

-END-

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.




Greg Oucharek
Senior Aircraft Certification Engineer
For Minister of Transport

Canada

6.0 PARTS LIST - CABIN DOOR MODIFICATION KITS

(FOR AIRCRAFT EQUIPPED WITH P/N 205-032-669-XXX ALUMINUM DOORS)

Qty -011	Qty -012	Qty -013	Qty -017	Qty -019	Qty -021	Qty -027	Qty -028	Part Number	Description
X								D412-698-011	CABIN DOOR ROLLER KIT, LH
	X							D412-698-012	CABIN DOOR ROLLER KIT, RH
		X						D412-698-013	DOOR HANDLE KIT
			X					D412-698-017	REPLACEMENT DOOR TRACK KIT
				X				D412-698-019	BEARING OVERHAUL KIT
					X			D412-698-021	REPLACEMENT SHIM KIT
						X		D412-689-027	BRACKET KIT, LH (ALUMINUM DOORS)
							X	D412-689-028	BRACKET KIT, RH (ALUMINUM DOORS)
3	3							D3121-141	BRACKET ASSEMBLY
1								D3121-143	BRACKET ASSEMBLY
	1							D3121-144	BRACKET ASSEMBLY
1	1							D3137-043	BRACKET ASSEMBLY
1								D3183-043	BRACKET ASSEMBLY
	1							D3183-044	BRACKET ASSEMBLY
9	9		9					D3199-1	BRACKET
						1		D3199-3	FORWARD BRACKET, LH
							1	D3199-4	FORWARD BRACKET, RH
1	1		1					D3202-1	COVER
								D3203-1	HANDLE
								D3220-041	DOUBLER
								D3220-042	DOUBLER
								D3220-3	DOUBLER
				7				D3121-21	BOLT
				5				D3121-241	BEARING ASSEMBLY
				1				D3137-3	GUIDE
				1				D3137-5	WASHER
				2				D3183-045	BEARING ASSEMBLY
					3			D3238-1	SHIM
					1			D3238-3	SHIM
					2			D3238-5	SHIM
					6			D3238-11	SHIM
					2			D3238-13	SHIM
					4			D3238-15	SHIM
		8						NAS1149D0463J	WASHER (AN960JD416L)
		8						MS21042L4	NUT (OR MS21042-4)
		16						MS24694-S98	SCREW
				1				MS24694-S101	SCREW